

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

**Product Identifier:** (5N) 99.999% Diethyltelluride

**Product Code:** 2ET-TE-05-LIQ

**CAS Number:** 627-54-3

**Relevant identified uses of the substance:** Scientific research and development

Supplier details:

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351  
Emergency telephone number:  
+1 800-424-9300

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## SECTION 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Combustible (USA) Flammable (EU). Toxic.  
Toxic by inhalation, in contact with skin and if swallowed.  
Target organ(s): Kidneys. Liver.

### HMIS RATING

HEALTH: 2\*

FLAMMABILITY: 2

REACTIVITY: 0

### NFPA RATING

HEALTH: 2

FLAMMABILITY: 2

REACTIVITY: 0

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance Name CAS # SARA 313  
DIETHYLTELLURIDE 627-54-3 No

Formula C<sub>4</sub>H<sub>10</sub>Te  
Synonyms Diethyl telluride \* Diethyltellurium \* Ethyl  
telluride (8CI) \* 1,1'-Tellurobisethane  
RTECS Number: KI8190000

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## SECTION 4. FIRST AID MEASURES

### ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

### INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

### DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

### EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

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## SECTION 5. FIREFIGHTING MEASURES

### FLAMMABLE HAZARDS

Flammable Hazards: Yes

### EXPLOSION HAZARDS

Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions. Forms explosive mixtures in air.

### FLASH POINT

108,000 °F 42,200 °C Method: closed cup

### AUTOIGNITION TEMP

N/A

### FLAMMABILITY

N/A

### EXTINGUISHING MEDIA

Suitable: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Emits toxic fumes under fire conditions.

Vapor may travel considerable distance to source of ignition and flash back.

Specific Method(s) of Fire Fighting: Use water spray to cool fire-exposed containers.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

### **PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL**

Evacuate area. Shut off all sources of ignition.

### **PROCEDURE(S) OF PERSONAL PRECAUTION(S)**

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

### **METHODS FOR CLEANING UP**

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors.

Ventilate area and wash spill site after material pickup is complete.

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## **SECTION 7. HANDLING AND STORAGE**

### **HANDLING**

User Exposure: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

### **STORAGE**

Suitable: Keep container closed. Keep away from heat, sparks, and open flame.

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **ENGINEERING CONTROLS**

Safety shower and eye bath. Use nonsparking tools. Use only in a chemical fume hood.

### **PERSONAL PROTECTIVE EQUIPMENT**

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

### **GENERAL HYGIENE MEASURES**

Wash thoroughly after handling. Remove and wash contaminated clothing promptly.

### **EXPOSURE LIMITS, RTECS**

Country Source Type Value

USA ACGIH TWA 0.145549 MG/M3

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance Physical State: Liquid

Color: Dark - yellow

Property Value At Temperature or Pressure  
Molecular Weight 185.7000 AMU  
pH N/A  
BP/BP Range 137-138 °C °760,000 mmHg  
MP/MP Range N/A  
Freezing Point N/A  
Vapor Pressure 9.3 mmHg 21,00 °C  
Vapor Density N/A  
Saturated Vapor Conc. N/A  
SG/Density 1.5920 g/cm<sup>3</sup>  
Bulk Density 1.592 kg/l 21,00 °C  
Odor Threshold N/A  
Volatile% N/A  
VOC Content N/A  
Water Content N/A  
Solvent Content N/A  
Evaporation Rate N/A  
Viscosity N/A  
Surface Tension N/A  
Partition Coefficient N/A  
Decomposition Temp. N/A  
Flash Point 108,000 °F Method: closed cup  
42,200 °C  
Explosion Limits N/A  
Flammability N/A  
Autoignition Temp N/A  
Refractive Index N/A  
Optical Rotation N/A  
Miscellaneous Data N/A  
Solubility N/A  
N/A = not available

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## **SECTION 10. STABILITY AND REACTIVITY**

### **STABILITY**

Stable: Stable.

Materials to Avoid: Strong oxidizing agents.

### **HAZARDOUS DECOMPOSITION PRODUCTS**

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Tellurium oxides.

### **HAZARDOUS POLYMERIZATION**

Hazardous Polymerization: Will not occur

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

### **ROUTE OF EXPOSURE**

Skin Contact: May cause skin irritation.

Skin Absorption: Toxic if absorbed through skin.

Eye Contact: May cause eye irritation.

Inhalation: Toxic if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion: Toxic if swallowed.

**TARGET ORGAN(S) OR SYSTEM(S)**

Liver. Kidneys.

**SIGNS AND SYMPTOMS OF EXPOSURE**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Increased liver enzymes. Dermatitis.

**TOXICITY DATA**

Oral

Rat

54,100000 mg/kg

LD50

Inhalation

Rat

24,000 mg/m<sup>3</sup>

LC50

Oral

Mouse

154,000000 mg/kg

LD50

Inhalation

Mouse

117,000 mg/m<sup>3</sup>

LC50

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## **SECTION 12. ECOLOGICAL INFORMATION**

No data available.

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

**APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION**

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT

Proper Shipping Name: Toxic liquids, flammable, organic, n.o.s.

UN#: 2929

Class: 6.1

Packing Group: Packing Group II

Hazard Label: Toxic substances.

Hazard Label: Flammable liquid

PIH: Not PIH

IATA

Proper Shipping Name: Toxic liquid, flammable,  
organic, n.o.s.  
IATA UN Number: 2929  
Hazard Class: 6.1  
Packing Group: II

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## **SECTION 15. REGULATORY INFORMATION**

### **EU ADDITIONAL CLASSIFICATION**

Symbol of Danger: T

Indication of Danger: Toxic.

R: 10-23/24/25

Risk Statements: Flammable. Toxic by inhalation, in contact with skin and if swallowed.

S: 36/37-45

Safety Statements: Wear suitable protective clothing and gloves.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### **US CLASSIFICATION AND LABEL TEXT**

Indication of Danger: Combustible (USA) Flammable (EU). Toxic.

Risk Statements: Toxic by inhalation, in contact with skin and if swallowed.

Safety Statements: Wear suitable protective clothing and gloves.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Statements: Target organ(s): Kidneys. Liver.

### **UNITED STATES REGULATORY INFORMATION**

SARA LISTED: No

TSCA INVENTORY ITEM: Yes

### **CANADA REGULATORY INFORMATION**

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

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## **16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.

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